

Skeleton Creek near Lovell

Station AT160500 (620910030010-001AT) is a permanent ambient trend monitoring station located on Skeleton Creek. Situated in the northwestern portion of Logan County, the site was established east northeast of the city of Lovell on State Highway 74. The station is positioned near the upper end of stream segment 620910030010 and is classified within the Lower Cimarron River - Skeleton Creek 8 digit HUC watershed (11050002). Water enters the stream system from several tributaries including Horse Creek, Otter Creek, and Wolf Creek, among others.

This station on Skeleton Creek has been active for all water quality variables since November of 1998. The following assessment of beneficial uses is based on data collected from May of 2002 through April of 2007. For purposes of reporting, this station is representative of Skeleton Creek from the confluence of Spring Creek (-97.7067, 36.1194) downstream to confluence of Skeleton Creek with the Cimarron River (97.3975, 35.9875). As per Appendix A, Table 6 of OAC 785:45, this water quality management segment is assigned the following designated beneficial uses: 1) Public and Private Water Supply (PPWS), 2) Warm Water Aquatic Community—Fish and Wildlife Propagation (WWAC), 3) Agriculture—Class II Irrigation (AG), and 4) Primary Body Contact—Recreation (PBCR).

The PPWS beneficial use is supported. The WWAC beneficial use is not supported. Of the thirty-three (33) turbidity samples, twenty (20) samples (or 61%) exceeded the numerical criteria of 50. Of the forty-six (46) visual site observations, five (5) samples (or 11%) exceeded the median observation value for oil and grease. Dissolved oxygen, pH, and toxicant samples met the criteria prescribed in the WWAC beneficial use. The AG beneficial use is supported for total dissolved solids, chlorides, and sulfates. The PBCR beneficial use is not supported. Of the twenty-seven (27) fecal coliform concentrations, ten (10) samples (or 37%) exceeded the prescribed screening level of 400 cfu/100mL. Of the 27 enterococci concentrations, eleven (11) samples exceeded the prescribed screening level of 406 cfu/100mL, and the geometric mean (400.8 cfu/100mL) exceeded the prescribed mean standard of 33 cfu/100mL. This segment of Skeleton Creek is not nutrient-threatened. The total phosphorus and nitrate/nitrite median values were below the threshold medians of 1.0 mg/L and 4.65 mg/L, respectively.

HUC 1105